



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

October 28, 2009

IN REPLY PLEASE

REFER TO FILE: PR-0
A3168-4

TO: Each Supervisor

FROM: Gail Farber *Gail Farber*
Director of Public Works

**BOARD MOTIONS OF SEPTEMBER 8 AND 15, 2009
AGENDA ITEMS 61-A AND 54-D
AUGUST/SEPTEMBER 2009 WILDFIRES
FOURTH DISASTER RECOVERY REPORT – OCTOBER 28, 2009**

The August/September series of wildfires resulted in significant damage to County roads and infrastructure in the Angeles National Forest. On September 8, 2009, your Board made a finding that an emergency situation existed that required immediate measures be undertaken to repair the damage, restore access to homes and businesses, and prevent and reduce potential flooding and damage due to mudflows. Your Board authorized the Director of Public Works to negotiate and execute emergency construction contracts, amend existing service contracts, and enter into new short-term contracts. In accordance with the Public Contract Code, Government Code, and County Code, your Board must review the necessity of these emergency contracting procedures every 14 days. As part of this requirement, attached is the fourth Disaster Recovery Report.

In view of ongoing disaster recovery activities, it is recommended that your Board determine: (1) there is still a need to continue the emergency action and (2) the Executive Office continue to place this item on the agenda for Board review every 14 days in accordance with Section 22050 of the Public Contract Code, the California Emergency Services Act (Government Code, Section 8550 et seq.), and Section 2.68.120 of the Los Angeles County Code.

BS:al

p:\prgpub\...SPENCER\MEMO 3168-4

Attach.

cc: Chief Administrative Office (William T Fujioka, Lari Sheehan)
Executive Office

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

Total Damage Estimates

Transportation		\$ 8,280,000
Tree Removal	935,000	
Guardrail Repair and Replacement	2,730,000	
Sign Replacement	161,000	
Striping Restoration	46,000	
Road Shoulder and Culvert Debris Removal	4,348,000	
Miscellaneous (Catch Basin, Headwall Repairs)	60,000	
Public Works Buildings		1,139,000
Assistant Dam Operator House (Big Tujunga Dam)	320,000	
Office and Crew Quarters at RD557A Subyard	819,000	
Communication Systems		185,000
San Gabriel Dam	5,000	
Pacoima Dam	30,000	
Big Tujunga Dam	150,000	
Flood Control		365,000
Repair Electrical System at Morris Dam	100,000	
Repair Electrical System at Big Tujunga Dam	250,000	
Repair/Replace Rain Gauges and Repeaters	15,000	
<hr/>		
Total		\$9,969,000
Roadway Culvert Upgrades and Debris Basin Cleanouts/Modifications Necessitated by the Fires		
Transportation		\$ 2,339,000
Road Culvert Inlet Upgrades	1,977,000	
Erosion Barriers (K-rails - Unincorporated Area)	362,000	
Flood Control		7,080,000
Debris Basin Cleanout	1,800,000	
Debris Basin Modification and Expansion	5,000,000	
Erosion Barriers (K-rails - City of La Canada)	280,000	
<hr/>		
Total		\$ 9,419,000
Grand Total		\$ 19,388,000

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

Public Works Expenditures through October 15, 2009

Total Expenditures (including overtime)	\$ 2,531,682
Total Encumbrances	\$ 2,502,432
<hr/>	
Total Expenditures and Encumbrances	\$ 5,034,114
Total Overtime ¹	\$ 399,450

Notes:

- ¹ Overtime represents the amount paid to the employee (straight time + premium time). It does not match the posted amount in eCAPs and what is posted to the general ledger. It represents all overtime paid through October 15, 2009.

COORDINATED AGENCY RECOVERY EFFORT (CARE)

The CARE team has grown to include Public Works, US Forest Service (USFS), National Incident Management Organization, U.S. Geological Survey (USGS), Natural Resources Conservation Service, Caltrans, the County of Los Angeles Fire and Sheriff's Departments.

To date, the CARE team members have conducted a total of nine council/community meetings with 12 additional council/community meetings planned for the next two weeks. The CARE team also assisted in the coordination of a special meeting between Public Works, USFS, and residents of Stoneyvale and Vogel Flats to discuss rebuilding and permitting procedures. A tour of debris basins for Board staff and USGS representatives was held on Thursday, October 15, 2009.

The CARE team continues to handle media inquiries about debris flow preparations, particularly in the wake of the recent release of the USGS debris flow assessment. The CARE team also coordinated the announcement of the October 12, 2009, road closures and the subsequent October 13, 2009, reopening, and handled subsequent media inquiries. A dedicated CARE website has been set up at www.dpwcare.org to provide updated information about mudflow forecasts and road closures as well as links to other fire recovery and storm preparation information. The website is receiving wide exposure through the media.

The CARE team is also distributing copies of the Homeowner's Guide for Flood Debris and Erosion Control at community meetings and has made an electronic version of the guide available on the website. Water Resources Division (WRD) staff has provided

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

engineering advice to approximately 450 residents to date and continues to receive calls via the toll-free telephone number. The CARE team is also scripting public service announcements for broadcast on city cable TV channels, including the Danger Debris Flow video.

LOS ANGELES AREA RESPONSE GROUP/INCIDENT MANAGEMENT TEAM

The USFS initiated a meeting between various governmental agencies in an effort to establish an ongoing unified effort to plan for and prepare for the effects of recent wildfires. This effort has lead to the formation of an Incident Management Team, spearheaded by the County of Los Angeles Fire Department in collaboration with the County of Los Angeles Office of Emergency Management; Public Works; municipal cooperators; and other Federal, State, and local partners, including the USFS, National Guard, California Emergency Management Agency, Caltrans, Army Corp of Engineers, National Oceanic and Atmospheric Administration, and USGS. Meetings are conducted weekly at Public Works.

At the meeting held October 14, 2009, subworking groups were created according to an agency's responsibilities, i.e. public information, law, logistics, operations, and finance. It was determined that all of the subworking groups need time to develop products to bring back to the main group for review and integration at the next meeting tentatively scheduled for November 4, 2009.

ROAD REOPENING-TRAFFIC COMMITTEE

Traffic and Lighting Division (T&L) has been meeting on a weekly basis with the USFS and Caltrans to discuss the reopening of roads. The USFS wants to consider some type of permit in order to distinguish who has a reason for being on the roads and who does not.

The Station Fire caused damage to guardrail, signage, and pavement markings on Angeles Crest Highway (State Route 2), which is under the maintenance purview of Caltrans. We have remained in close contact with Caltrans during the recovery phase of this disaster to ensure that steady progress is made towards reopening Angeles Forest Highway to commuter traffic in tandem with the reopening of Angeles Crest Highway. A target of this reopening to commuter traffic is mid-November 2009. However, we, along with Caltrans, have been working with the USFS to ensure that the highway network in the burn area be closed to all traffic when the potential for mud and debris flow exists.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

The recent rainfall caused a minor hillside slip-out on Angeles Crest Highway that required the placement of a retaining structure by Caltrans. Caltrans has completed this repair work. Since each of these routes remains an active construction zone during the storm season due to utility and hazard mitigation work, such as culvert upgrades, we will continue to meet with Caltrans to determine the advisability of keeping the routes closed to commuter traffic indefinitely.

TRANSPORTATION

Palos Verdes Fire

No impacts reported.

Morris Fire

Glendora Mountain Road and East Fork Road

Closed on August 25, 2009. The roads were reopened on October 1, 2009. Wooden covers for rural catch basins have been damaged. Road Maintenance Division (RMD) estimates the cost to replace the catch basin covers is \$10,000. Operational Services Division (OSD) reported that 20 signs related to flood control facilities have been damaged/destroyed. OSD estimates the cost to replace the signs at \$2,500.

Station Fire

Angeles Forest Highway – Mt. Emma Road/Angeles Crest Highway

Closed on August 26, 2009. The road is open only to local residents, emergency personnel, and contractors. Through traffic is prohibited, with access allowed only from the north or via Big Tujunga Canyon Road through Sunland. Angeles Forest Highway is barricaded at Angeles Crest Highway. This road has a reported Average Daily Traffic (ADT) volume of 4,544 vehicles. It is a commuter route primarily used by residents of the Antelope Valley.

Design Division (DES) estimates the cost of guardrail repairs at \$1,050,000. OSD reports that approximately 400 roadway signs have been destroyed and the cost to replace the signs is estimated to be \$80,000. OSD completed the sign replacement work on September 24, 2009. OSD has also restored the striping and raised pavement markers at an estimated cost of \$20,000. RMD completed the removal of approximately 600 burned trees. RMD has reviewed 172 existing culverts and has determined that 45 locations need trash rack or standpipe to mitigate the effects of mud/debris flow during storms. Five locations on Angeles Forest Highway will be done by force account and the rest will be by contract. Approval of this work from the USFS is expected by the

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

end of October 2009. Plans have been completed. Construction is scheduled to begin on November 9, 2009, and scheduled to be completed by January 1, 2010.

Plans for replacement of the guardrail were completed on September 11, 2009. The construction contract was awarded on September 24, 2009. Construction is estimated to take six weeks and be completed by November 16, 2009.

DES is finalizing contract plans to replace the fire-damaged bridge railings on the Mill Creek bridge at Angeles Forest Highway as a separate project. The plans are scheduled to be completed by October 29, 2009. The cost for this work is estimated to be about \$80,000. In the interim, DES requested MD 5 to install temporary K-rails and crash cushions at this location. MD 5 has installed the temporary K-rails and crash cushions at an estimated cost of \$20,000.

RMD recommends installing by force account approximately 6,400 linear feet of K-rails at various locations along the shoulders of Angeles Forest Highway to keep mud and debris off the roadway during storms. The cost to purchase and install these K-rails is estimated at \$228,000.

Public Works will coordinate with Caltrans to develop a plan and schedule for reopening Angeles Forest Highway in conjunction with Angeles Crest Highway. Caltrans reports that Angeles Crest Highway will remain closed for at least the next several weeks.

Big Tujunga Canyon Road – L.A. City Boundary/Angeles Forest Highway

Closed on August 28, 2009. The road is only open to local residents, emergency personnel, and contractors. Through traffic is prohibited. This road has a reported ADT of 825 vehicles.

DES estimates the cost of guardrail repairs at \$560,000. OSD completed the replacement of 200 roadway signs effective September 24, 2009, at an estimated cost of \$40,000. OSD has also restored the striping and raised pavement markers at an estimated cost of \$10,000. RMD completed the removal of approximately 160 burned trees. RMD has reviewed 60 existing culverts and has determined 35 locations that need trash rack or standpipe to mitigate the effects of mud/debris flow during storms. Approval of this work from the USFS is expected by the end of October 2009. Plans have been completed. Construction is scheduled to begin on November 9, 2009, and scheduled to be completed by January 1, 2010.

RMD recommends installing by force account approximately 2,100 linear feet of K-rails at various locations along the shoulders of Big Tujunga Canyon Road to keep mud and

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

debris off the roadway during storms. The cost to purchase and install these K-rails is estimated at \$76,000.

Plans for replacement of the guardrail were completed on September 16, 2009. The construction contract was awarded on September 28, 2009. Construction is estimated to take four weeks and be completed by November 5, 2009.

Upper Big Tujunga Canyon Road – Angeles Forest Highway/Angeles Crest Highway
Closed on August 28, 2009. The road is only open to local residents, emergency personnel, and contractors. Through traffic is prohibited. Access is available via Angeles Forest Highway, with a hard closure at Angeles Crest Highway. This road has a reported ADT of 176 vehicles.

DES estimates the cost of guardrail repairs at \$1,120,000. OSD has replaced approximately 100 roadway signs effective September 24, 2009, at an estimated cost of \$21,000. OSD completed the sign replacement work on September 24, 2009. OSD has also restored the striping and raised pavement markers at an estimated cost of \$9,000. RMD completed the removal of approximately 400 burned trees. RMD has reviewed 84 existing culverts and has determined that 36 locations need trash rack or standpipe to mitigate the effects of mud/debris flow during storms. Approval of this work from the USFS is expected by the end of October 2009. Plans have been completed. Construction is scheduled to begin on November 9, 2009, and scheduled to be completed by January 1, 2010.

RMD recommends installing by force account approximately 1,070 linear feet of K-rails at various locations along the shoulders of Upper Big Tujunga Canyon Road to keep mud and debris off the roadway during storms. The cost to purchase and install these K-rails is estimated at \$38,000.

Plans for replacement of the guardrail were completed on September 21, 2009. The construction contract was awarded on October 1, 2009. Construction is estimated to take 6 weeks and be completed by November 24, 2009.

Aliso Canyon Road – Angeles Forest Highway/Ave Y-8
Closed on August 30, 2009. Reopened on September 3, 2009. DES and RMD estimate that guardrail repairs at bridge approaches for Bridge No. 3797 will cost \$49,000. This work will be included in the guardrail contract for Angeles Forest Highway. RMD will need to remove three burned trees pending USFS approval. OSD has replaced the approximately 20 roadway signs that were destroyed by the fires at an estimated cost of \$5,000. OSD has also restored the striping and raised pavement markers at an estimated cost of \$3,000.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

Mt. Emma Road – 47th Street East/Angeles Forest Highway

Closed on August 30, 2009. Reopened on September 3, 2009.

Little Tujunga Canyon Road – Gold Creek Road/Sand Canyon Road

Closed on August 29, 2009. Reopened on September 6, 2009. RMD conducted a detailed survey of the guardrails and found no fire-damaged guardrails. Upon field review, OSD reports no damage to the roadway signs and striping. RMD found no trees or roadway drainage structures impacted by the fire.

Sand Canyon Road

Closed on August 29, 2009. Reopened on September 9, 2009. OSD reports no damage to the roadway signs and striping. RMD found no trees or roadway drainage structures impacted by the fire.

Mt. Wilson Red Box Road

Closed on August 29, 2009. The road was reopened by emergency personnel on September 28, 2009. DES conducted a detailed survey of the guardrails and found no fire-damaged guardrails. OSD reports no damage to the roadway signs. OSD has restored the striping at an estimated cost of \$4,000. RMD completed the removal of approximately 23 burned trees. RMD has assessed roadway drainage structures and recommended trash rack/standpipes at 8 locations. This work will be done by County forces.

Other

Needed drainage inlet upgrades, such as trash racks and stand pipes, have been identified by RMD along Angeles Forest Highway, Big Tujunga Canyon Road, Upper Big Tujunga Canyon Road, and Mt. Wilson Red Box Road to protect these roads from storm flows. The work will be divided into three contracts, allowing for up to three contractors to be working at the same time. The estimate to install these improvements is \$1,411,900 of which \$211,400 will be done by force account and \$1,200,500 by contract. Approval of this work from the USFS is expected by the end of October 2009. Plans have been completed. Construction is scheduled to begin on November 9, 2009, and scheduled to be completed by January 1, 2010.

The removal of about 1,200 trees along Angeles Forest Highway, Big Tujunga Canyon Road, Upper Big Tujunga Canyon Road, Mt. Wilson Red Box Road, and Aliso Canyon Road, is estimated to cost \$835,000. This work is being done by force account and emergency contract. Approximately 1,200 burned trees have been removed by both as-needed contractors and County forces. The tree removals were completed on October 4, 2009. RMD estimates approximately 1,000 trees/shrubs need to be removed within the culvert inlet areas, which will be done by force account

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

at an estimated cost of \$325,000. This work is scheduled to be completed by December 19, 2009.

RMD estimates approximately 340 culvert markers were burned and will need to be replaced at an estimated cost of \$12,000. Approximately 225 have been replaced to date at an estimated cost of \$6,000.

The total number of raised reflective markers installed to date is 4,300.

PUBLIC WORKS BUILDING DAMAGE

Palos Verdes Fire

No impacts reported.

Morris Fire

No impacts reported.

Station Fire

The Assistant Dam Operator's residence at Big Tujunga Dam was destroyed in the Station Fire. Project Management Division II (PMD II), County Disaster Assistant Team and the Office of Emergency Services inspected the house at Big Tujunga Dam on October 10, 2009.

The office and crew quarters (1800 sf) at the RD 557A yard at Mill Creek were destroyed in the Station Fire. Architectural Engineering Division (AED) estimates the demolition and cost to rebuild will be \$819,000.

OTHER COUNTY DEPARTMENTS BUILDING DAMAGE

No impacts reported.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

PRIVATE PROPERTY DAMAGE

Palos Verdes Fire

Three structures in the City of Rolling Hills suffered eave/roof damage. Building and Safety (B&S) is working with the city to assist residents with erosion control advice and with building permits for any necessary fire damage repairs.

Morris Fire

No impacts reported.

Station Fire

As of September 10, B&S staff has inspected 67 properties with destroyed or damaged structures as reflected in the following table:

OCCUPANCY	DESTROYED (100%)	DAMAGED (<100%)
Dwellings	32	4
Cabins	26	1
Detached Garage	23	3
Accessory (RES)	19	8
Commercial	1	2
Other	8	2
Total	109	20

The number of affected properties/structures may grow as new locations are discovered by the Fire Department and/or reported by the public. Damage estimate is not available at this time.

B&S is currently working with property owners to facilitate the proper demolition of the destroyed structures and the removal of debris. Property owners have been advised to (1) contact their insurance companies prior to cleanup, (2) verify that utilities have been cleared for safety by the utility companies (gas, electrical, and water), and (3) use a licensed contractor to perform the cleanup.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

A demolition permit must be obtained from B&S. A 10-day notification to South Coast Air Quality Management District (SCAQMD) is required prior to cleanup along with the filing of a construction debris recycling plan with Environmental Programs Division (EPD). BFI will be providing large construction debris roll-off bins free charge to residents in the Big Tujunga Canyon vicinity as part of the cleanup and recovery effort.

EPD is currently working with the Los Angeles and Lahontan Regional Water Quality Control Boards to authorize the acceptance of fire debris at (1) Sunshine Canyon, Puente Hills, and Chiquita Canyon Landfills, and (2) Antelope Valley and Lancaster Landfills, respectively. According to the Los Angeles Regional Water Quality Control Board staff, a formal authorization is anticipated to be issued this week. However, based on preliminary discussions with the Lahontan Regional Water Quality Control Board staff, a formal authorization will most likely not be immediately issued since it requires Water Board approval rather than staff approval.

Browning Ferris Industries and Waste Management Inc., will be working with community groups and town councils to provide donated dumpsters (and discounted dumpster services on a case-by-case basis) to affected property owners as part of the cleanup and recovery effort in the La Crescenta/Tujunga area and Antelope Valley.

Provided the Water Board authorizes the acceptance of fire debris, BFI and Waste Management will also provide discounted gate rates at Sunshine Canyon and Lancaster Landfills, respectively, for all self-hauled fire debris.

In addition, EPD, in coordination with the Fire Department, is currently planning a special household hazardous/electronic waste collection event near the unincorporated County area of Tujunga. The event date has not yet been scheduled.

In coordination with our B&S, EPD has waived all waste diversion requirements for debris from fire-damaged structures and removed the need for property owners to make an extra trip to Public Works' headquarters.

COMMUNICATIONS SYSTEMS

Palos Verdes Fire

No impacts reported.

Morris Fire

A communication line at the San Gabriel Dam facility was damaged as a result of the Morris Fire and has been repaired at a cost of approximately \$5,000.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

Station Fire

Communication lines and poles at the Big Tujunga Dam facility were damaged. ITD will work with OSD to determine reconstruction options (e.g. poles versus underground) and provide estimated costs. ITD is unaware of communication damage to Pacoima Dam as a result of the Station Fire.

The Road Weather Information System (RWIS) at RD 557A (Mill Creek) is not operational. ISD is assessing the cost to repair the system.

ITD determined there is no communication damage to Cogswell Dam and Mt. Disappointment. Both sites are on generator power.

FLOOD CONTROL SYSTEM

Palos Verde Fire

No impacts reported. Mudflow Phase maps have been completed and are currently available through the Public Works and CARE websites.

Morris Fire

No impacts reported to flood control operation. Minor damages were sustained to phone line, power lines, and signage in the vicinity of Morris Dam. The cost to repair this damage is approximately \$100,000. Electricity has been restored to Morris Dam.

Post fire mudflow impacts to San Gabriel, Morris, and Cogswell Dams have been evaluated and recommendations were made for measures to prevent damage to facilities, maintain reliable dam operations, and provide dependable access on-site.

Station Fire

Post fire mudflow impacts to Big Tujunga Dam have been evaluated and recommendations were made for measures to prevent damage to facilities, maintain reliable dam operations, and provide dependable access on-site.

The clean-out of seven debris basins, namely Dunsmuir, Eagle, Gould, Mullaly, Pinelawn, Rowley, and Shields have been completed. The clean-out of Gould Upper Debris Basin will commence this week. This work provides additional capacity for the anticipated increased volume of debris in the coming storm season resulting from the fire. The cost of the debris removal is estimated to be \$1.8 million.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

WRD and DES have evaluated the need to increase storage capacity at seven debris basins within the fire area, namely Big Briar, Mullally, Snover, Pickens, Starfall, Pinelawn, and Rowley. Scope of work and corresponding cost estimates have been developed for all with the exception of Rowley Debris Basin. The estimated cost for these improvements is approximately \$650,000. Flood Maintenance Division (FMD) has completed the work at Starfall Debris Basin and will be installing the temporary capacity enhancements at the remaining five debris basins within the next four weeks. In addition, WRD is still investigating and evaluating locations that may require rail and timber structures or similar type of structures to minimize property damage as well as additional permanent improvements to the debris basins. Construction contracts for any permanent capacity enhancements will have to wait until the storm season is over; otherwise, the basins will have reduced capacity and be potentially inoperable during the storm season. The cost for these structures and basin improvements is estimated to be approximately \$5 million.

Public Works Engineering Advice Teams have provided advice to approximately 450 residences within the City of La Canada-Flintridge, City of Glendale, and the unincorporated County areas of La Crescenta, Big Tujunga, and Acton. The City of Los Angeles has requested our assistance with providing engineering advice to their residents. The reconnaissance effort to identify the properties in need of advice started October 27, 2009, and is expected to take several days to complete, after which, we will develop teams to provide engineering advice.

OSD completed their inspection of the power lines at Big Tujunga Dam and an initial recovery scoping meeting with FMD, WRD, and OSD occurred on September 23, 2009. Electrical upgrades may likely be constructed with the recovery process. WRD will be providing project updates with schedules and estimates. A contractor will be needed to perform the work to bring power to the dam and outlying facilities.

Upon further investigation only one ALERT rain gauge station and one repeater were damaged or destroyed at Chilao and Mt. Gleason, respectively. The estimated cost to repair and/or replace the equipment is \$15,000. The rain gauge has been replaced. The repeater is being procured and is expected to be installed by November 30, 2009.

WRD has entered into five funding agreements with the Natural Resources Conservation Service (NRCS) for the implementation of mudflow protective measures as well as the installation of temporary capacity enhancements at two debris basins. Additional funding agreements are being developed for mudflow protective measures for residences.

**DEPARTMENT OF PUBLIC WORKS
RECOVERY REPORT FOR THE AUGUST/SEPTEMBER 2009 WILDFIRES
OCTOBER 28, 2009**

RMD is placing K-rail, sandbags, and crash barrels in La Canada-Flintridge and La Crescenta per approved agreements with NRCS. The installation of K-rail and associated crash barrels has been completed. Approximately 2,000 sandbags have been installed to date.

Mudflow phasing maps for the unincorporated County areas of La Crescenta, Tujunga, Acton as well as the cities La Canada-Flintridge and Glendale have been completed and are currently available on the DPW and CARE websites.

FMD has constructed pipe and timber debris retaining walls at various locations in Dunsmuir Sediment Placement Site to keep the debris from going onto the residential streets.

WATERWORKS SYSTEMS

No impacts reported.

COUNTY SEWER SYSTEMS

No impacts reported.

COUNTY AIRPORTS

No impacts reported.